## **ABSTRACT**

An apparatus and method for manufacturing particles using corona discharge is disclosed. A discharge electrode is provided within a guide duct and reaction gases are supplied into the guide duct. A high voltage is applied to the discharge electrode and a low voltage is applied to the guide duct to generate a voltage difference therebetween. When heat energy is applied to the reaction gases, chemical reactions occur in the gases and particles are made by the chemical reactions. The particles form new particles centering around ions as nuclei which are generated by corona discharge and moves along the guide duct. A collecting plate positioned in front of the guide duct collects the particles.

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